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PATENT
Atty. Docket No. 30454-243
LSI C4-4247

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

SANDEEP BHUTANI, ET AL.

Serial No.: 09/515,376

Filed: February 29, 2000

For: 4 POINT DERATING SCHEME FOR PROPAGATION DELAY AND SETUP/HOLD TIME COMPUTATION

Group Art Unit: 2123

Examiner: T. Phan

AMENDMENT/RESPONSE TO OFFICE ACTION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

The following remarks respond to the Office Action dated April 10, 2003 in the above-identified case.

Claims 1 to 22 remain pending in the Application, with claims 1, 13, 17, 18 and 19 being the independent claims. Reconsideration further examination are respectfully requested.

In the Office Action, claims 1 to 22 were rejected under the judicially created doctrine of obviousness-type double patenting over claims 1 to 15 in U.S. Patent 6,484,297 (the '297 Patent). Withdrawal of this rejection is respectfully requested for the following reasons.

Independent claims 1, 17 and 18 are directed to a method, apparatus and system, respectively, in which a first set of cell delays is generated by assigning nominal values to cell parameters and a second set of cell delays is generated by varying values assigned to the cell parameters. A delay equation is then created based on the first and second sets of delays, and cell delays are computed using the delay equation, with the delay equation characterizing the delays in terms of the cell parameters.

The foregoing combination of features is not disclosed or suggested by claims 1 to 15 of the '297 Patent. For instance, such claims do not appear to disclose or to suggest at least the present claims' features of generating a first set of cell delays by assigning nominal values to cell parameters, generating a second set of cell delays by varying the assigned values, or creating a delay equation based on such first and second sets of delays. In fact, the Office Action has not even alleged that claims 1 through 15 of the '297 Patent disclose or suggest these features of the present invention.

While the Examiner is correct that both sets of claims generally concern cell delay computation based on process variation parameters, temperature parameters,

operation voltage, input ramptime and/or output load, the specific limitations of the two sets of claims are believed to be significantly different. For this reason, an obviousness-type double patenting rejection is believed to be inappropriate.

Similarly, independent claims 13 and 19 are directed to a method and an apparatus, respectively, for computing cell delay in which a first set of cell delays is generated in a first simulation by using nominal values for process, supply voltage and temperature of the cell. A time value is assigned within a first range to an input ramptime of the cell during the generation of each of the delays in the first set, a load value is assigned within a second range to an output load of the cell during the generation of each of the delays in the first set, and a second set of the cell delays is generated in a second simulation by using non-nominal values for the process, supply voltage and temperature of the cell. A delay equation is created based on the first and second sets of delays, and cell delays are computed using the delay equation, with the delay equation characterizing the delays in terms of the process, supply voltage, temperature, input ramptime and output load of the cell.

Once again, these claims appear to be significantly different than those in the '297 Patent, and the Office Action has not even alleged that any of the foregoing limitations are suggested by the claims of the '297 Patent, much less attempted to specify how such limitations would have been obvious in view of those claims.

With regard to an obviousness-type double-patenting rejection, MPEP § 804 states, "any analysis employed in an obviousness-type double patenting rejection parallels the guidelines for analysis of a 35 U.S.C. 103 obviousness determination." Thus, MPEP § 804 goes to state:

> "Any obviousness-type double patenting rejection should make clear:
> (A) The differences between the inventions defined by the conflicting claims - a claim in the patent compared to a claim in the application; and
> (B) The reasons why a person of ordinary skill in the art would conclude that the invention defined in the claim in issue is an obvious variation of the invention defined in a claim in the patent.

The present rejection does not provide this analysis, and therefore is not believed to present a *prima facie* case of obviousness-type double patenting. If such an analysis were to be performed, it would be clear that many, if not all, of the present claim limitations simply are not disclosed or suggested by the claims of the '297 Patent. For the foregoing reasons, withdrawal of the obviousness-type double-patenting rejection is respectfully requested.

In the Office Action, the present claims 1 to 22 also were rejected under 35 U.S.C. § 103(a) over U.S. Patent 6,028,995 (Jetton). Withdrawal of this rejection is respectfully requested for the following reasons.

At the outset, it is noted that both the Jetton patent and the current patent application are assigned to LSI Logic Corporation, the latter pursuant to an assignment that was recorded on May 22, 2000 at Reel 010836, Frame 0481. The attached Declaration of Assignee reveals that both of the present inventors were employees of LSI Logic, made the present invention in the course of their employment with LSI Logic, and therefore had an obligation to assign the invention to LSI Logic. Thus, under the provisions of 35 U.S.C. § 103(c) and M.P.E.P. § 706.02(l)(1), Jetton cannot qualify as prior art under any of subsections (e), (f) or (g) of 35 U.S.C. § 102 in connection with a rejection under 35 U.S.C. § 103.

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The attached Declaration of Patent Attorney shows that the present invention was made prior to the February 22, 2000 issuance date of the Jetton patent. Accordingly, Jetton also cannot qualify as § 102(a) prior art. It does not appear that Jetton would fall under any other category of prior art. Accordingly, withdrawal of the § 103 rejection over Jetton is respectively requested.

In view of the foregoing remarks and the accompanying Declarations, the entire Application is believed to be in condition for allowance and an indication to that effect is respectfully requested.

If there are any fees due in connection with the filing of this paper that have not been accounted for in this paper or the accompanying papers, please charge the fees to Deposit Account No. 12-2252. If an extension of time under 37 C.F.R. 1.136 is required for the filing of this paper and is not accounted for in this paper or the accompanying papers, such an extension is requested and the fee (or any underpayment thereof) should also be charged to the Deposit Account. A duplicate copy of this page is enclosed for that purpose.

Respectfully submitted,

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Dated: July 1, 2003

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